



# **Information Systems Office**

**Dr. W. M. Mularie**  
Director

# Environment

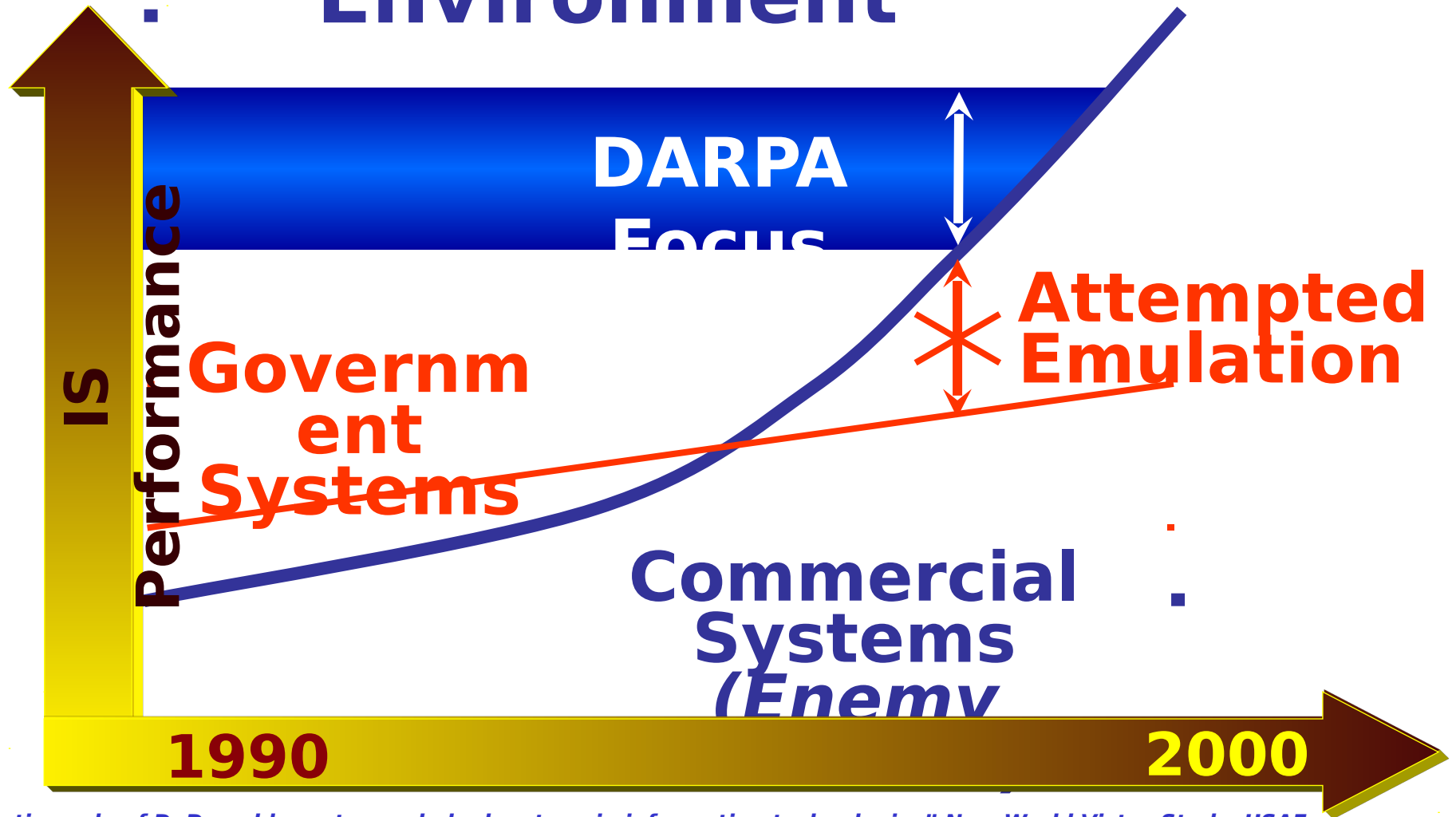
*“What we believe about the world”*

- **Reflects JV 2010 Information Superiority**
  - ◆ Network Centric Warfare
  - ◆ Digitization of the Battlefield
- **Heterogeneous World**
  - ◆ Intra / Inter (Joint)
  - ◆ Coalition
  - ◆ Commercial Market Driven
- **Threat**
  - ◆ Force on Force
  - ◆ Asymmetric Warfare





# Commercial Market Driven Environment

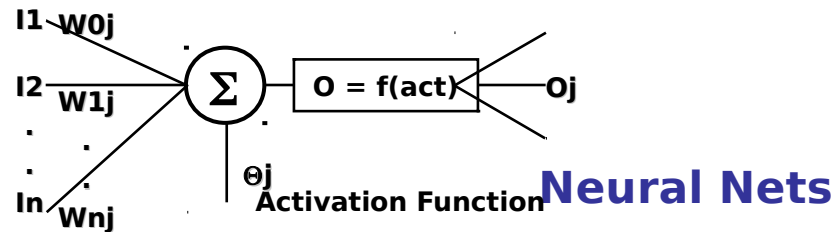
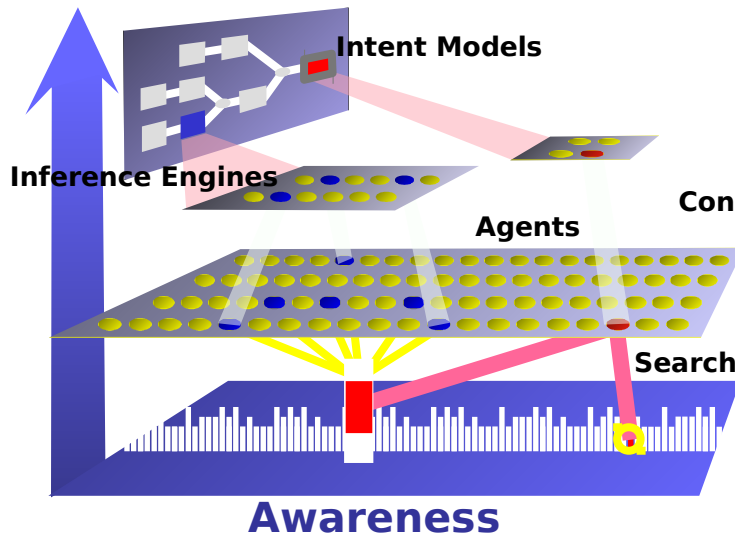
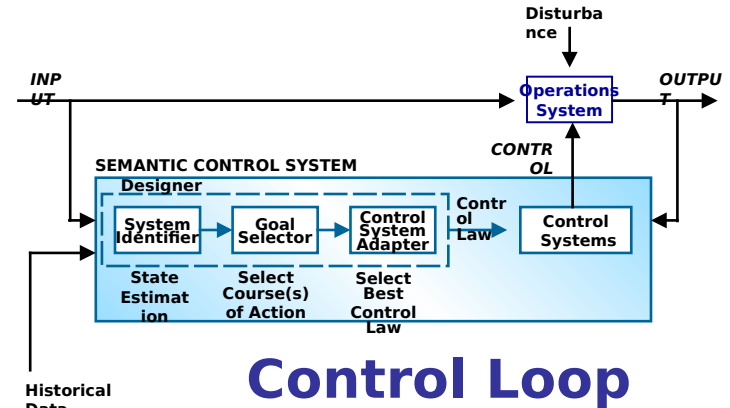
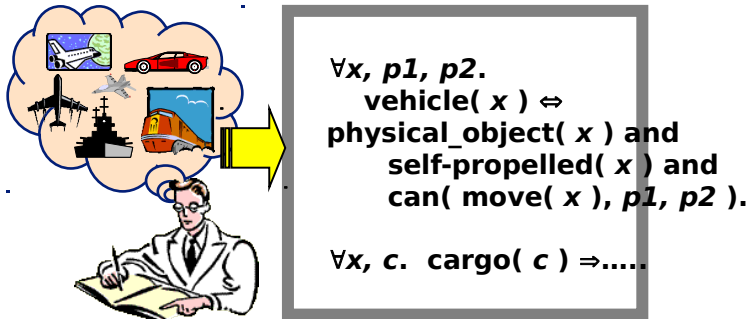


Forecasting role of DoD could create needed advantage in information technologies" New World Vistas Study, USAF  
Dr. William M. Mularie and Maj Gen Robert Rosenberg (Ret.)



# The ISO Landscape

## Parsing Axioms



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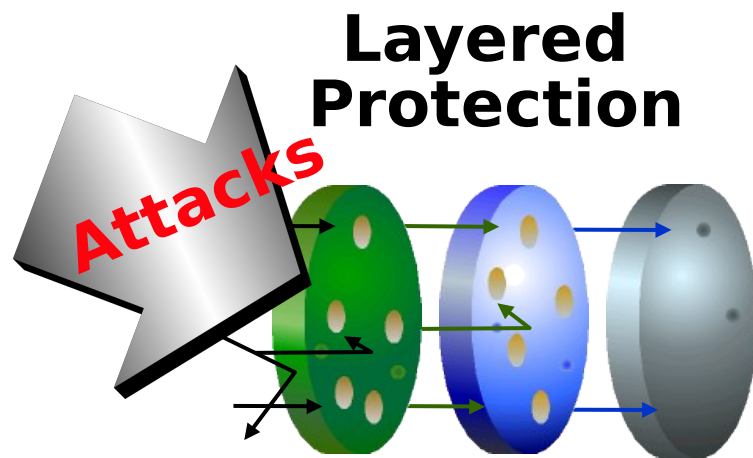
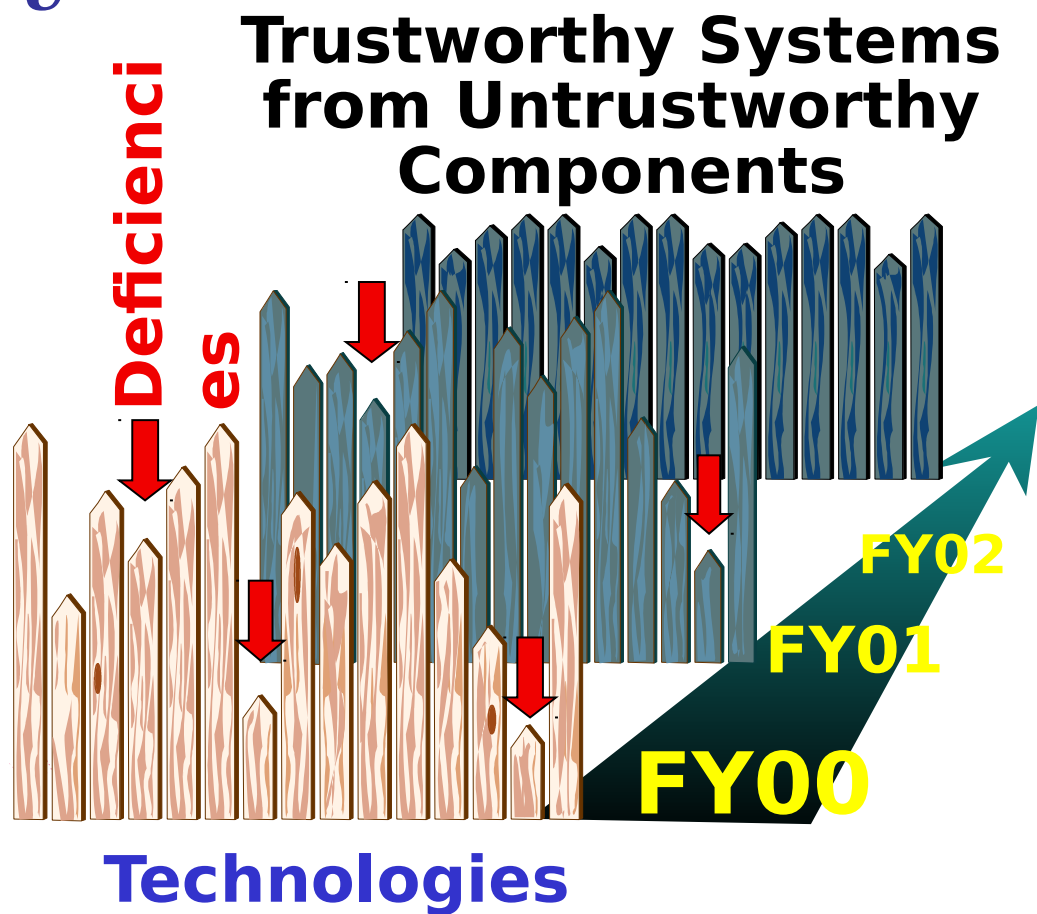
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# ISO Response

- **Strategic Cyber Defense**
- Total Information Awareness
- Command & Control

# Strategic Cyber Defense



- **Prevention**
- **Detection**
- **Tolerance**

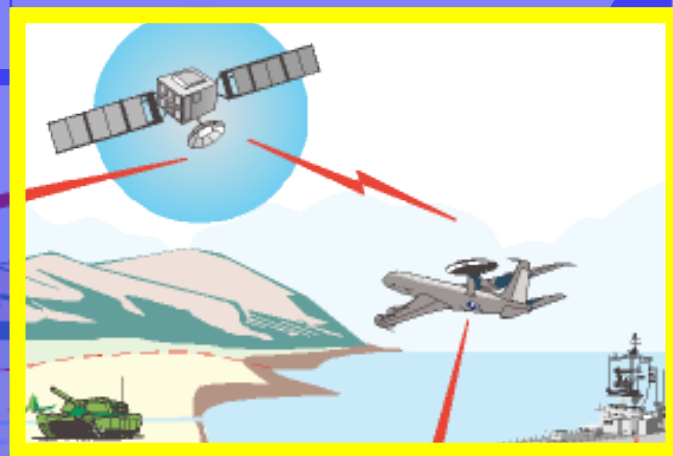
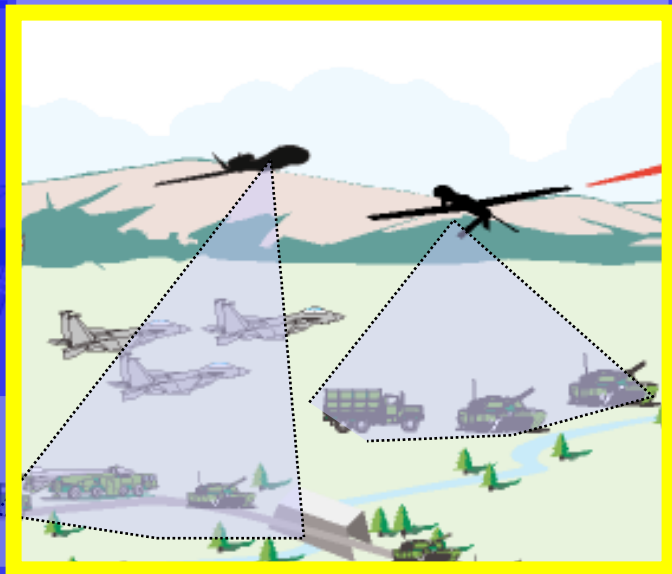


# ISO Response

- Strategic Cyber Defense
- **Total Information Awareness**
- Command & Control



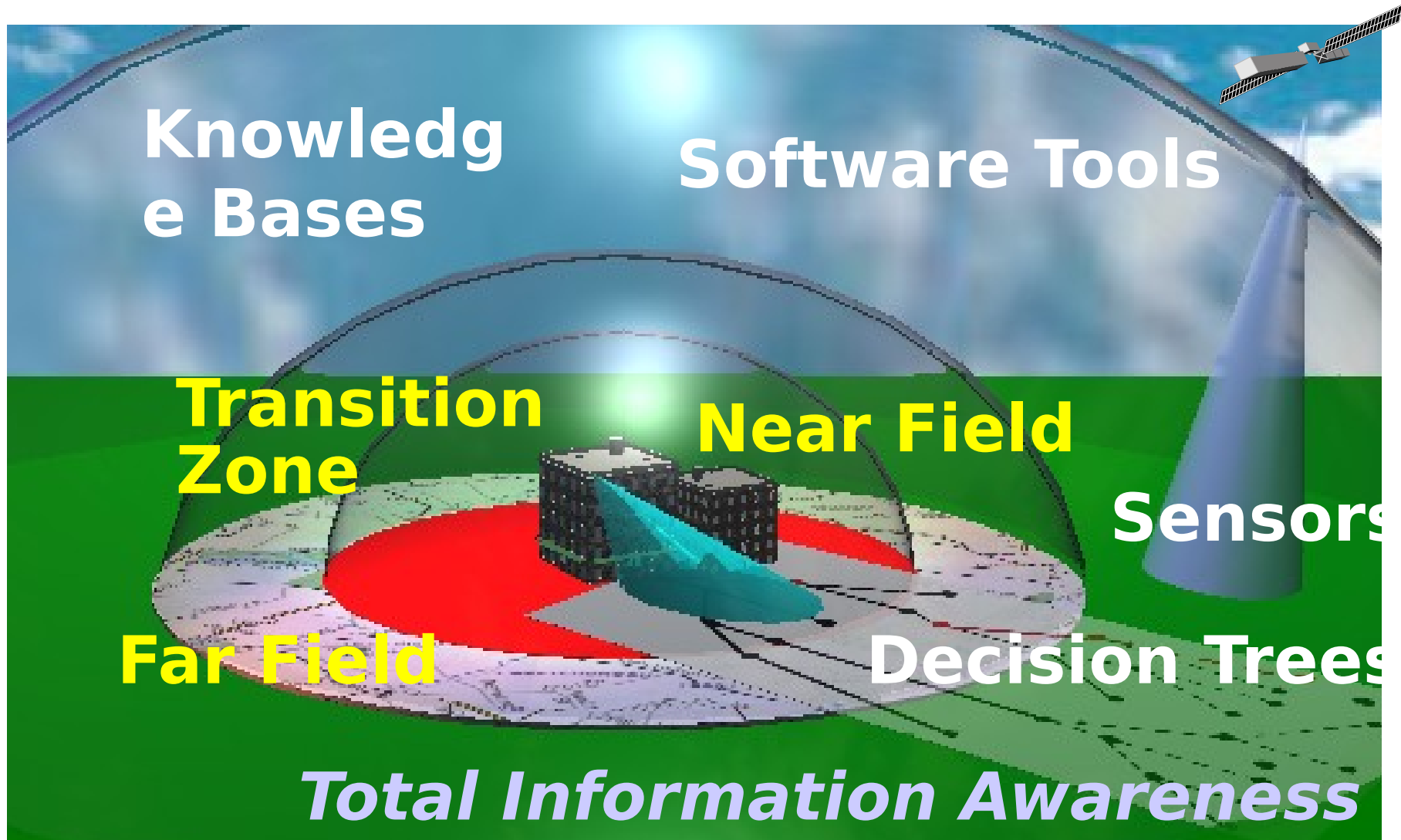
# Force on Force - JV2010







# Asymmetric Warfare



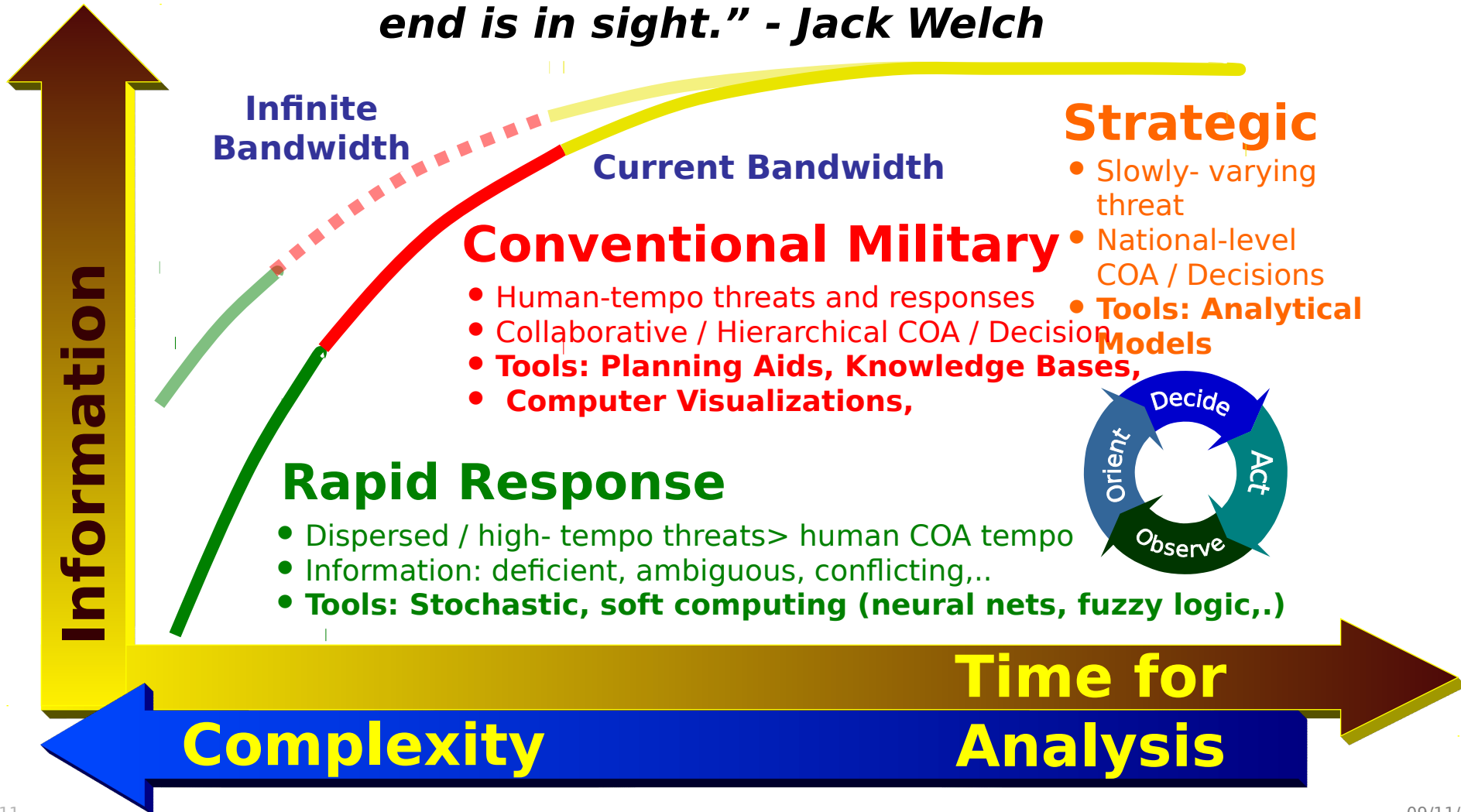


# ISO Response

- Strategic Cyber Defense
- Total Information Awareness
- **Command & Control**

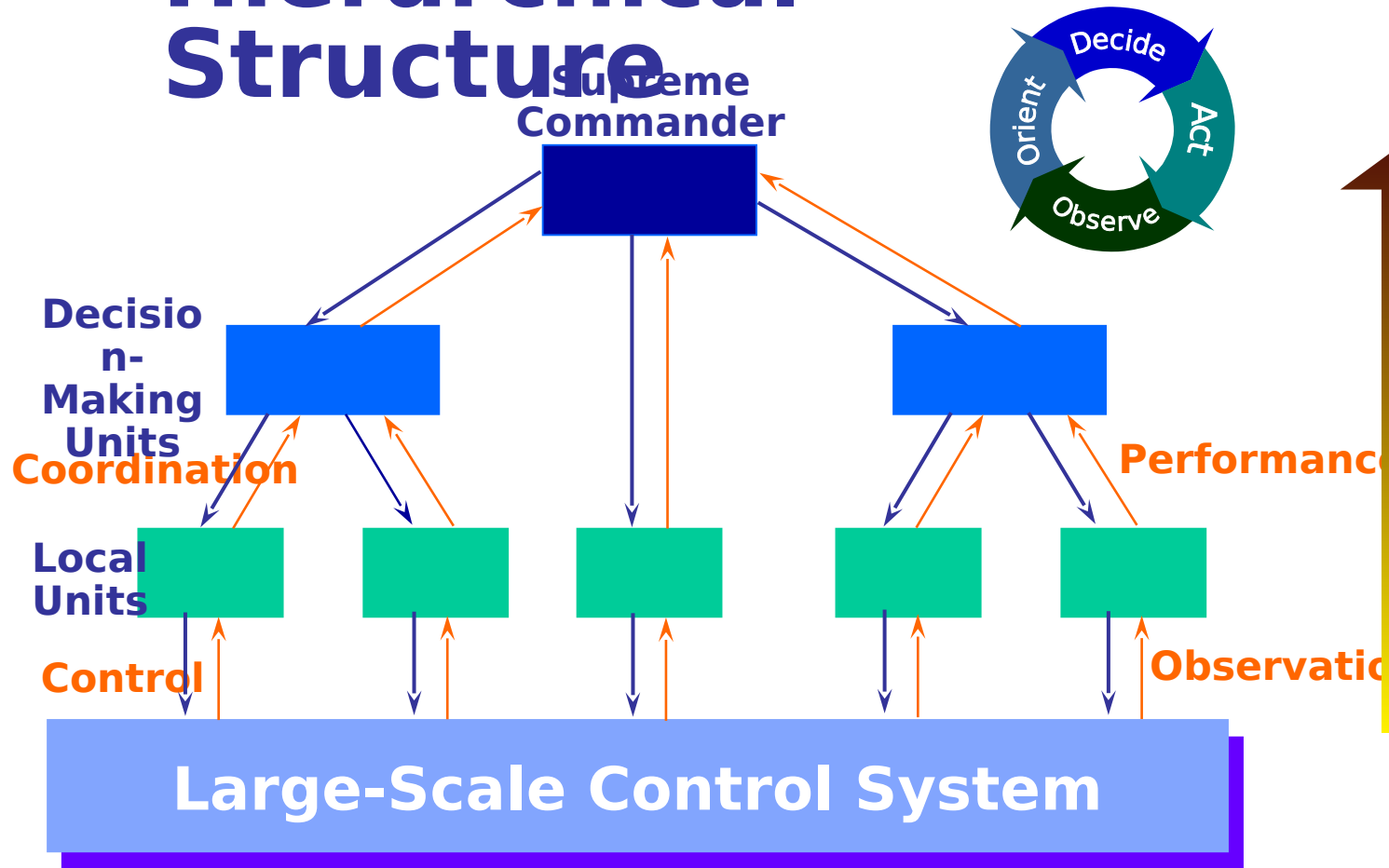
# Tempo of Command & Control

*“When the rate of change outside exceeds the rate of change inside, the end is in sight.” - Jack Welch*





# Command & Control Hierarchical Structure



Organization Change? Or Process Change?



# Management of Information

## *Existing Military Management Information Systems*

- Do not give transparency and semantic connectivity to all levels of a hierarchical organization
- Do not provide needed levels of information abstraction at various echelons:
  - (Commander: “How are we doing”?)
  - (Tactical: “Is the



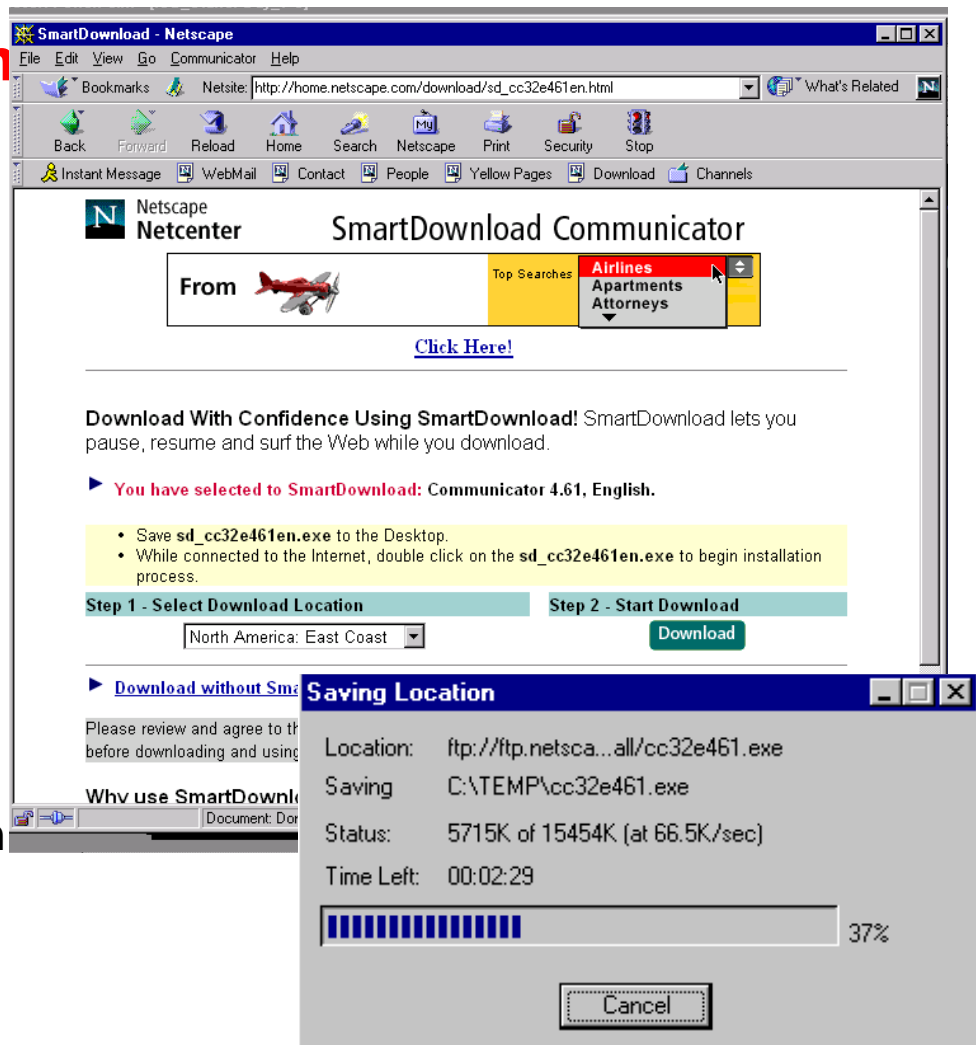
# ISO Development Environment

## • Technology Integration Center

- ◆ Experimentation
- ◆ Emulates commercial industry
- ◆ Cuts development time /cost
- ◆ Enhanced interoperability

## • Software Component Transition

- ◆ Model after commercial practices
- ◆ Military downloads software components under development for evaluation or functionality
- ◆ Beta versions posted on DOD networks
- ◆ User Feedback





**William Mularie** Director ISO

**Kathy MacDonald**

Deputy Director Operations

**Steve Carroll**

ADPM

**Jane Bryant**

Program

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Office

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Systems  
Office

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**Joint Logistics  
Technology Office**

**Todd Carrico**

Director

**Lou Mason** JL ACTD

*Program Manager*

**Tom Armour**

**Murray Burke**

**Todd Carrico**

**Steve Carroll**

Demonstration

**Rae Dehncke**

**Ref Delgado**

ATD

**Doug Dyer**

**Dan Fortney**

**Dave Gunning**

**Jim Hendler**

**Jaynarayan Lala**

**George Lukes**

Protection /IUFP

**Lou Mason**

**Cathy McCollum**

Cyber Command & Control

**Dan McCorry**

**Ward Page**

**John Salasin**

**Sami Saydjari**

*Program*

Project GENOA

Rapid Knowledge Formation/HPKB

Advanced Logistics Project

BADD/Technology Integration &

Synthetic Theater of War ACTD

Technology Integration Experiments/JTF

Active Templates/P&DA

Total Information Awareness

Human ID at a Distance

CoABS/DAML/TASK

Intrusion Tolerant Systems

Image Understanding for Force

Joint Logistics ACTD

Joint Force Air Component Commander

Command Post of the Future

Very Large Systems Engineering

IA&S/Strategic Intrusion Assessment